

REMARKS

In this amendment, Applicant amends independent claim 1 to recite “a polymer matrix” having the “first ceramic fiber embedded in the matrix.” Support for this amendment can be found throughout the specification, for example in paragraph 73 and in Fig. 7. Applicant has also amended independent claim 19 to recite that the non-ceramic fiber comprises “stainless steel, a nickel-titanium alloy, or a combination thereof.” Applicant has also canceled claims 6, 12, 16, and 27-32. Independent claims 1, 19, and 33 remain pending.

Independent claim 1, as amended, is patentable over Canham et al., U.S. Patent Application Publication 2005/0048859 (“Canham”) because Canham does not disclose or render obvious a stent, stent-graft, graft, medical balloon, or catheter including a polymer matrix having the claimed ceramic fiber embedded in the matrix. Although Canham discloses the use of a “silicon or silicon containing fabric [to] form the basis of [a] stent,” Canham contains no disclosure of a stent, stent-graft, graft, medical balloon, or catheter that includes silicon fibers within a polymer matrix. Applicant also points out that paragraphs 10 and 42 of Canham also do not disclose or suggest “a polymer matrix and a first ceramic fiber embedded in the matrix, the first ceramic fiber comprising a first metalloid.” Paragraph 10 of Canham states that the term “silicon . . . may include composites of semiconducting silicon combined with medical-grade polymer, ceramic *or* metal phases.” Canham, paragraph 10 (emphasis added). Paragraph 42 discusses how “silcon or silicon composite fibers” can be produced. “For example, hollow amorphous silicon microfibers may be obtained by coating a fibre, such as a polymer, metal, ceramic (including glass) fiber, preferably with a hollow core, with silicon and particularly amorphous or polysilicon.” Canham, paragraph 42. Neither paragraphs suggest having a ceramic fiber embedded in a polymer matrix.

Independent claim 19, as amended, is also patentable over Canham. Canham does not disclose, or even suggest, a stent, stent-graft, or graft including a ceramic fiber intertwined with a

non-ceramic fiber, where the non-ceramic fiber comprises stainless steel, a nickel-titanium alloy, or a combination thereof, as claimed.

As admitted by the Examiner, Canham does not disclose "a metal made of stainless steel or Nitinol." Office Action, page 5. The Examiner, however, argues that the claim is obvious because "Canham et al. discloses a silicon material capable of combined with ceramic or metal phases." This is irrelevant. Canham does disclose that silicon can be deposited onto polymer, metal, *or* ceramic fibers to make composite fibers (paragraph 42), but does not disclose a ceramic fiber intertwined with a metal fiber. Furthermore, Canham does not disclose a stent, a stent-graft, or a graft that includes such an intertwined structure. Accordingly the rejection is improper.

Furthermore, the Examiner has not provided any reason why one having ordinary skill in the art would use a non-ceramic fiber containing stainless steel and/or a titanium-nickel alloy intertwined with a ceramic fiber to produce a stent, stent-graft, or graft. The Examiner alleges that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the metal used in combination with the silicon with the stainless steel or nitinol, since it has been held to be within the general skill of a worker in the art to select an equivalent known element on the basis of its suitability for the intended use as a matter of obvious design choice." This is not a reason why one having ordinary skill in the art at the time of invention would produce the claimed device. This is a conclusory statement. "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Because the Examiner has not even provided a reason for why one having ordinary skill in the art would have made the claimed device based on the disclosure of Canham, the rejection fails to present a *prima facie* case of obviousness. Accordingly, the rejection is in error and should be withdrawn.

The rejection of independent claim 33 under 35 U.S.C. § 102(e) over Canham is also in error. Claim 33 requires a medical device that includes "a tubular structure; and a polymer

element on the tubular structure, wherein the polymer element comprises a ceramic fiber comprising a metalloid.” Canham does not disclose any tubular structure that includes a polymer element that includes a ceramic fiber including a metalloid. Canham does disclose that a silicon fiber can be produced by coating a polymer *or* ceramic fiber with silicone (paragraph 42), but Canham does not disclose any tubular body that is coated with a polymer element that includes such a ceramic/silicone fiber. Accordingly, the rejection is in error and should be withdrawn.

The dependent claims are allowable for the same reasons as discussed with regard to the independent claims from which they depend. Additionally, Appellant requests that the withdrawn dependent claims be rejoined and allowed because they each depend from allowable generic claims. As such, Applicants request that the Examiner allow all pending claims 1-5, 7-11, 13-15, 17-25, 33-40, 46, and 51.

Although Applicants have amended certain claims to advance prosecution, Applicants believe that, before amendment, the claims contained patentable subject matter. As such, Applicants reserve the right to pursue claims of the same or similar scope in the future.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue, or comment does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

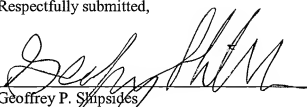
Applicant : William Shaw
Serial No. : 10/762,816
Filed : January 22, 2004
Page : 10 of 10

Attorney's Docket No.: 10527-455001 / 02-312

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 3/3/08


Geoffrey P. Shapsides
Reg. No. 55,617

Fish & Richardson P.C.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (612) 288-9696